

Remarks

Claims 1-15 and 21-24 have been amended. Claims 29-30 have been added. Previously withdrawn claims 17-20 are dependent on a generic claim which is submitted to be allowable and therefore the applicant submits that claims 17-20 should now be examined. Claims 25-28 were previously withdrawn. The applicant respectfully submits that claims 1-24 and 29-30 are pending and should be examined.

I. Claim Objections

Claims 11 and 21 were previously objected to as being substantial duplicates. Claims 11 and 21 have been amended and the objections are respectfully submitted to be obviated.

II. Rejections under 35 U.S.C. 112

Original claims 1-16 and 21-24 were previously rejected under 35 U.S.C. 112, second paragraph. Various claims have been amended and these rejections are respectfully submitted to be obviated.

III. Rejections under 35 U.S.C. 102 based on La Mura et. al. and under 35 U.S.C. 103 based on La Mura et. al. in view of established case law and Crocker

Original claims 1-7, 11-16, and 21-24 were rejected under 35 U.S.C. 102 based on La Mura et. al. Original claim 8 has been rejected under 35 U.S.C. 103 based on La Mura in view of established case law. Original claim 9 has been rejected under 35 U.S.C. 103 based on La Mura in view of Crocker. The applicant does not necessarily agree with the rejections. However, various claims have been amended.

Claim 1 has been amended and now specifies:

1. A pyrotechnic device for simulating weapons firing and/or hit indications comprised of:
 - a magazine having a plurality of receptacles for receiving a plurality of corresponding blank ammunition rounds;
 - a stand including a base connected to a section; and
 - wherein the section is connected to the base in a manner which allows the section to be tilted with respect to the base;
 - and further comprising means for attaching the magazine to the section so that when the section is tilted with respect to the base the magazine is also tilted with respect to the base.

La Mura and Crocker do not disclose the combination of limitations of amended claim 1. For example, La Mura and Crocker do not disclose a section connected to a base in a manner which allows the section to be tilted with respect to the base and means for attaching a magazine to the section so that when the section is tilted the magazine is also tilted. In contrast, in one or more embodiments of the present invention, a tilt able stand 100 is provided. (Present application, Figs 5 and 6). The stand 100 has a top frame (or section) 104 which can be tilted with respect to a base frame 110. (Present application, pg. 5, last paragraph, Fig. 5 and 6). The apparatus 10 (including magazine 20) can be attached to the top frame (or section) 104 to allow the apparatus 10 (and magazine 20) to tilt with respect to the base frame 110. (Present application, pg. 5, last paragraph – pg. 6, second paragraph, Figs. 5 and 6).

Claim 1 is submitted to be allowable for at least the foregoing reasons. Claims 2 and 3 are dependent on claim 1 and are submitted to be allowable for at least the same reasons as claim 1.

Claim 4 has been amended and now specifies:

4. A pyrotechnic device for simulating weapons firing and/or hit indications comprised of:
 - a magazine having a plurality of receptacles for receiving a plurality of corresponding blank ammunition rounds;
 - a top plate having a plurality of peripheral conductive discs located thereon corresponding in number to the plurality of receptacles;
 - wherein the magazine can be placed on the top plate such that each of the

plurality of receptacles is located over a corresponding one of the plurality of peripheral conductive discs;

and wherein each of the plurality of blank ammunition rounds can be placed in a corresponding one of the plurality of receptacles so that a first contact of each of the plurality of blank ammunition rounds is in ohmic contact with a corresponding one of the plurality of peripheral conductive discs.

La Mura and Crocker do not disclose the combination of limitations of amended claim 4. For example, La Mura and Crocker do not disclose a plurality of peripheral conductive discs as claimed in claim 4, located on a top plate corresponding in number to a plurality of receptacles. In contrast in one or more embodiments of the present invention, peripheral conductive discs such as 304a are provided. (Present application, Fig. 3, pg. 8, second paragraph).

Claim 4 is submitted to be allowable for at least the foregoing reasons. Claims 5, 8-10, and 13-20 and new claims 29-30 are dependent on claim 4 and are submitted to be allowable for at least the same reasons.

Claim 6 has been amended and now specifies:

6. A pyrotechnic device for simulating weapons firing and/or hit indications comprised of:
a magazine having a plurality of receptacles for receiving a plurality of corresponding blank ammunition rounds;

wherein in response to a command to fire at least two blank ammunition rounds at about the same time the pyrotechnic device fires a first blank ammunition round at a first time and a second blank ammunition round at a second time, wherein the difference between the first time and the second time is less than or equal to thirty milliseconds,

and wherein each of the first and the second blank ammunition rounds includes a bridgewire which causes the firing of the respective blank ammunition round, and wherein the pyrotechnic device causes a first application of current to the bridgewires of the first and second blank ammunition rounds to fire the first and second blank ammunition rounds and wherein after firing the first and second blank ammunition rounds, the pyrotechnic device causes a second application of current to the bridgewires of the first and second blank ammunition rounds in order to burn out the bridgewires.

La Mura and Crocker do not disclose the combination of limitations of amended claim 6. For example, La Mura and Crocker do not disclose a pyrotechnic device which fires two blank ammunition rounds within thirty milliseconds in response to a command to fire at least two blank

ammunition rounds at about the same time. La Mura and Crocker also do not disclose a first application of current to bridgewires to fire ammunition rounds and a second application of current to bridgewires, after firing to burn out bridgewires. In contrast, in the present application in one or more embodiments, a command to fire two rounds causes a first application of current to bridgewires to fire the two rounds within thirty milliseconds and a second application of current to bridgewires after firing to burn out the bridgewires. (Present application, pg. 18, last paragraph – pg. 19, first paragraph, pg. 20, fourth and fifth paragraphs)

Claim 11 has been amended and now specifies:

11. A pyrotechnic device for simulating weapons firing and/or hit indications comprising a magazine comprised of a plurality of receptacles having a plurality of corresponding bores for receiving a corresponding plurality of rounds of blank ammunition of a first type or a second type or a corresponding plurality of rounds of blank ammunition of a first type and a second type;

wherein each bore has upper, middle, and lower sections;

wherein each upper section has a first diameter, each middle section has a second diameter, and each lower section has a third diameter;

wherein the first diameter is less than the second diameter and the second diameter is less than the third diameter;

wherein the magazine has a top surface and a bottom surface, and wherein each upper section begins at the top surface and ends inside the respective bore, and wherein each lower section begins at the bottom surface and ends inside the respective bore;

wherein each of the plurality of rounds of blank ammunition of the first type can be inserted into any of the plurality of bores so that at least a portion of each of the plurality of rounds of blank ammunition of the first type lie inside the upper, middle, and lower sections of the respective bore at the same time;

wherein each of the plurality of rounds of blank ammunition of the second type can be inserted into any of the plurality of bores so that at least a portion of each of the plurality of rounds of blank ammunition of the second type lie inside the upper, middle, and lower sections of the respective bore at the same time;

and wherein each of the plurality of rounds of blank ammunition of the first type is the same, each of the plurality of rounds of blank ammunition of the second type is the same, and each of the plurality of rounds of blank ammunition of the first type differ in size from each of the plurality of rounds of blank ammunition of the second type.

La Mura and Crocker do not disclose the combination of limitations of amended claim 11.

For example, La Mura and Crocker do not disclose a pyrotechnic device having a magazine having a plurality of bores, each of which has upper, middle, and lower sections, wherein the

diameter of the upper section is less than the diameter of the middle section and the diameter of the middle section is less than the diameter of the lower section, and wherein blank ammunition rounds of two types can fit within the upper, middle, and lower sections. La Mura discloses only one type of round or shell 24 which fits in at most two different sections having two different diameters, i.e. shoulder 46 and bore 44. (La Mura, Fig. 7, col. 5, lns. 52-67). In contrast, in the present application in one or more embodiments, three sections having three different diameters (25a, 25b, and 25c shown in Fig. 4) are provided and can accept rounds of two different types so that a particular round fits in sections 25a, 25b, and 25c at the same time. (Present application, pg. 5, second paragraph, Fig. 4, Fig. 1).

Claim 11 is submitted to be allowable for at least the foregoing reasons. Claim 12 is dependent on claim 11 and is submitted to be allowable for at least the same reasons as claim 11.

Claim 21 has been amended and now specifies:

21. A pyrotechnic device for simulating weapons firing and/or hit indications, comprising a magazine comprised of a plurality of receptacles for receiving a corresponding plurality of rounds, the magazine having an underside surface;
wherein a plurality of safety interlocks is located on the underside surface of the magazine;
further comprising a top plate having a top surface on which are located a plurality of contact pads which correspond in number to the plurality of safety interlocks;
wherein the magazine can be placed on top of the top plate so that the underside surface of the magazine lies on top of the top surface of the top plate and each of the plurality of safety interlocks on the magazine comes in ohmic contact with a corresponding one of the plurality of contact pads on the top plate;
and wherein the pyrotechnic device does not arm when power is applied unless each of the plurality of safety interlocks on the magazine is in ohmic contact with a corresponding one of the plurality of contact pads on the top plate.

La Mura and Crocker do not disclose the combination of limitations of amended claim 21. For example, La Mura and Crocker do not disclose a pyrotechnic device with a magazine having a plurality of safety interlocks wherein the pyrotechnic device does not arm when power is applied unless each of the plurality of safety interlocks is in ohmic contact with a corresponding one of a

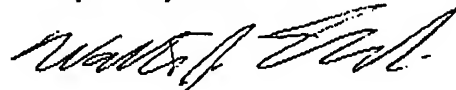
plurality of contacts pads. In contrast, in the present application, in one or more embodiments, safety interlocks or contacts 28 need to make contact with their respective contact pad 90 or the apparatus 10 will never arm when power is applied. (Present application, pg. 6, last paragraph – pg. 7, first paragraph, Fig. 3 and Fig. 7).

Claim 21 is submitted to be allowable for at least the foregoing reasons. Claims 22-24 are dependent on claim 21 and are submitted to be allowable for at least the same reasons.

IV. Conclusion

Claims 1-24 and 29-30 are respectfully submitted to be in a condition for allowance. A credit card payment form for \$250.00 is enclosed for extra claims (2 additional independent over three, $2 \times 100.00 = 200.00$; and two additional total claims over twenty, $2 \times \$25.00 = 50.00$). Favorable reconsideration of this application, as amended, is respectfully requested.

Respectfully submitted,



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